propose to amend Section 1.948 of the Commission's Rules to remove the prohibition on the assignment or transfer of aircraft licenses. Commenters supporting such an amendment should address whether any other of the Commission's Rules should be amended in order to permit assignment or transfer of aircraft radio station licenses, and whether aircraft license assignments and transfers could occur under the same basic regulatory framework, and using the same FCC Form 603, as is now used for the assignment and transfer of other wireless licenses.

I. ELTs Operating on the Frequency 121.5 MHz

43. The COSPAS-SARSAT satellite system (COSPAS/SARSAT) uses satellites in low-earth and geostationary orbits to detect and locate aviators, mariners, and land-based users in distress. The satellites relay distress signals from emergency beacons, including ELTs, to a network of ground stations and, in the United States, ultimately to the U.S. Mission Control Center (USMCC) in Suitland, Maryland. The USMCC processes the distress signal and alerts the appropriate search and rescue authorities. In October 2000, COSPAS/SARSAT announced that it plans to terminate satellite processing of distress signals from 121.5 MHz (and 243 MHz) emergency beacons on February 1, 2009. It urged those using emergency beacons on those frequencies to switch to 406.0-406.1 MHz

(...continued from previous page)

Telecommunications Bureau Grants Applications for Assignment of Licenses to WorldCom. Inc. and Its Subsidiaries as Debtors in Possession, Public Notice, 17 FCC Red 24530 (2002); Implementation of Further Streamlining Measures for Domestic Section 214 Authorizations, Declaratory Ruling and Notice of Proposed Rulemaking, CC Docket No. 01-150, 16 FCC Rcd 14109, 14122 ¶ 27 (2001). In the case of involuntary assignments due to bankruptcy, the licensee is given thirty days from the date of the bankruptcy filing to file an FCC Form 603 application with the Commission. See 47 C.F.R. § 1.948(g). As noted, however, aircraft licenses may not be assigned, voluntarily or involuntarily, but must instead be surrendered for cancellation if the licenses files for bankruptcy protection. See 47 C.F.R. § 1.948(g). As a result, the licensee is deemed to no longer hold the licenses as of the date of the bankruptcy filing, and the licensee as a debtor-in-possession must re-apply for what are in essence the same licenses. Not only is this an expensive and cumbersome process, especially for an entity in financial distress, but it almost always results in a time lag between the loss of the "old" licenses and the acquisition of the "new" licenses (since the latter cannot even be applied for until after the bankruptcy filing has occurred), and this means there will be some period during which continued operation of the aircraft radio stations would technically constitute unauthorized operation, a violation which generally could be mitigated but not wholly avoided by the quick grant of an STA. Some of these same problems – although not those that are specific to involuntary assignments - would occur again when, for example, the licensee seeks to effectuate a plan of reorganization (necessitating the acquisition of new aircraft licenses by the reorganized entity) or a bankruptcy trustee seeks to effectuate a liquidation (necessitating the acquisition of new aircraft licenses by the purchaser in a court-approved asset purchase agreement).

¹⁶² COSPAS/SARSAT is a joint international satellite-based search and rescue system established by Canada, France, Russia, and the United States. COSPAS is an acronym for a Russian phrase meaning space system for search and distress vessels. SARSAT stands for Search and Rescue Satellite Aided Tracking. *See* Termination of 121.5/243 MHz Satellite Alerting, *Notice*, National Oceanic and Atmospheric Administration Docket No. 010501107-1107-01, 66 Fed. Reg. 34912, 34913 (2001) (*NOAA Notice*); see also http://www.sarsat.noaa.gov/.

¹⁶³ There are three types of emergency or distress beacons: Emergency Position Indicating Radio Beacons (EPIRBs) for maritime use, ELTs for aircraft use, and Personal Locator Beacons (PLBs) for personal use. PLBs, however, are not authorized to operate on the frequency 121.5 MHz, but only on 406.025 MHz. See Amendment of Part 95 of the Commission's Rules to Authorize the Use of 406.025 MHz for Personal Locator Beacons (PLB), Report and Order, WT Docket No. 99-366, 17 FCC Red 19871 (2002).

¹⁶⁴ See NOAA Notice, 66 Fed. Reg. at 34913.

¹⁶⁵ Distress signaling on the frequency 243 MHz is restricted to military use.

¹⁶⁶ See id. at 34912. COSPAS/SARSAT decided to stop satellite processing of 121.5/243 MHz signals because of poor accuracy and a very high incidence of false alerts (over ninety-nine percent) in those frequency bands, and based in part on guidance from the IMO and ICAO.

emergency beacons. In addition, the National Oceanographic and Atmospheric Administration (NOAA), the U.S. Coast Guard, the U.S. Air Force, and the National Aeronautical and Space Administration, which jointly administer the COSPAS/SARSAT system in the United States, strongly advise users of 121.5 MHz beacons to switch to 406.0-406.1 MHz beacons. We seek comment on what actions the Commission should take in light of the planned phase-out of satellite alerting on frequency 121.5 MHz. While 406.0-406.1 MHz ELTs are clearly superior to 121.5 MHz ELTs in important respects, they may be considerably more expensive. In addition, we understand that there is some difference of opinion within the search and rescue and aviation communities as to whether 121.5 MHz distress alerting will remain a viable search and rescue tool even after the COSPAS/SARSAT phase-out of 121.5 MHz satellite reception is completed. We ask interested parties to provide their views on this issue. Commenters should consider, among other things, whether the Commission should stop certifying 121.5 MHz ELTs and, if so, pursuant to what timeline and subject to what, if any, grandfathering protection for devices in service. Its

V. CONCLUSION

44. In this WT Docket No. 01-289 rulemaking proceeding, the Commission has endeavored to "modernize the Part 87 Rules in a manner that will enhance aviation safety, facilitate the deployment of new technologies, encourage innovation in the aviation and the avionics equipment industries, harmonize our Rules with international standards, and maximize spectral efficiency while maintaining important safeguards against interference" and also harmonizing our rules with those of the FAA. This Second Report and Order amends a number of Part 87 Rules toward that end, and this Second Further Notice of Proposed Rule Making proposes and/or seeks comment on additional rule changes that may also further the objectives of this proceeding.

¹⁶⁷ See id. at 34913. The emergency beacons in question, although sometimes referred to as 406 MHz ELTs or 406.025 MHz ELTs, are now referred to in the Commission's Rules as 406.0-406.1 MHz ELTs to better reflect that they may operate on various frequencies in three kilohertz steps within the 406.0-406.1 MHz band, rather than just on a single frequency. See, e.g., 47 C.F.R. § 87.199; see also Amendment of Parts 13 and 80 of the Commission's Rules Concerning Maritime Communications, Report and Order and Further Notice of Proposed Rule Making, WT Docket No. 00-48, 17 FCC Rcd 6741, 6773-74 ¶ 84-85 (2002) (GMDSS Report and Order) (adopting the same terminology for maritime emergency beacons).

¹⁶⁸ NOAA has primary responsibility for operating and maintaining the COSPAS/SARSAT system in the United States.

¹⁶⁹ See http://www.sarsat.noaa.gov/; see also NOAA Notice, 66 Fed. Reg. at 34913.

^{170 406.0-406.1} MHz emergency beacons transmit a digital signal, and are more reliable and more precise than 121.5 MHz emergency beacons in locating parties in distress. Unlike 121.5 MHz emergency beacons, 406.0-406.1 MHz emergency beacons are not susceptible to false alerts. Each 406.0-406.1 MHz emergency beacon has a unique identifier encoded within the digital signal. As long as this identifier has been registered, as is legally required, Rescue Control Centers can quickly verify that the distress is real, as well as ascertain the identity and location of the parties in distress. Beacons operating on 121.5 MHz, in contrast, are not capable of automatically verifying that the distress is real, and have been triggered by ATM machines, electronic scoreboards, even pizza ovens. Accordingly, search and rescue authorities must independently verify that a 121.5 MHz distress signal has been transmitted due to an actual distress situation.

Some contend, for instance, that emergency beacon signals on 121.5 MHz could be received and relayed to search and rescue personnel by over-flying aircraft.

¹⁷² The Commission has already mandated a phase-out of EPIRBs operating on the frequency 121.5 MHz. The Commission no longer certifies such EPIRBs and no longer permits their manufacture, importation or sale in the United States. Use of such EPIRBs must cease after December 31, 2006. See GMDSS Report and Order 17 FCC Rcd at 6761-62 ¶ 47; 47 C.F.R. § 80.1055.

¹⁷³ See Report and Order, 18 FCC Rcd at 21476 ¶ 93.

VI. PROCEDURAL MATTERS

A. Ex Parte Rules - Permit-But-Disclose Proceeding

45. This is a permit-but-disclose notice and comment rulemaking proceeding. *Ex parte* presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed as provided in our Rules.¹⁷⁴

B. Congressional Review Act

46. The Commission will send a copy of this Second Report and Order and Second Further Notice of Proposed Rule Making and Fourth Memorandum Opinion in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. 801(a)(1)(A).

C. Regulatory Flexibility Act

- 47. As required by the Regulatory Flexibility Act (RFA),¹⁷⁵ the Commission has prepared a Final Regulatory Flexibility Analysis (FRFA) of the rules adopted in the *Second Report and Order* in WT Docket No. 01-289. The FRFA for the *Second Report and Order* in WT Docket No. 01-289 is contained in Appendix D. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of the *Second Report and Order* in WT Docket No. 01-289, including the FRFA, to the Chief Counsel for Advocacy of the Small Business Administration, in accordance with the RFA. ¹⁷⁶ In addition, the Commission will send a copy of the Second Report and Order, including the FRFA, in a report to Congress pursuant to the Congressional Review Act. ¹⁷⁷
- 48. As required by the RFA,¹⁷⁸ the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the rules proposed or discussed in the Second Further Notice of Proposed Rule Making in WT Docket No. 01-289. The IRFA for the Second Further Notice of Proposed Rule Making in WT Docket No. 01-289 is contained in Appendix E. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines for comments on the Second Further Notice of Proposed Rule Making in WT Docket No. 01-289, and they should have a separate and distinct heading designating them as responses to the IRFA. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of the Second Further Notice of Proposed Rule Making in WT Docket No. 01-289, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration, in accordance with the Regulatory Flexibility Act. 179

D. Comment Dates

49. Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using: (1) the Commission's Electronic Comment Filing System (ECFS), (2) the Federal Government's eRulemaking Portal, or (3) by filing paper copies. See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998).

¹⁷⁴ See generally 47 C.F.R. §§ 1.1202, 1.1203, 1.1206(a).

^{175 5} U.S.C. § 603.

¹⁷⁶ Id. § 603(a).

¹⁷⁷ Id. § 801(a)(1)(a).

¹⁷⁸ Id. U.S.C. § 603.

¹⁷⁹ Id. § 603(a).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: http://www.fcc.gov/cgb/ecfs/ or the Federal eRulemaking Portal: http://www.regulations.gov. Filers should follow the instructions provided on the website for submitting comments.
 - For ECFS filers, if multiple docket or rulemaking numbers appear in the caption of this proceeding, filers must transmit one electronic copy of the comments for each docket or rulemaking number referenced in the caption. In completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions, filers should send an e-mail to ecfs@fcc.gov, and include the following words in the body of the message, "get form." A sample form and directions will be sent in response.
- Paper Filers: Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- The Commission's contractor will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, NE., Suite 110, Washington, DC 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of <u>before</u> entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail should be addressed to 445 12th Street, SW, Washington DC 20554.

People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

E. Paperwork Reduction Act

50. This Second Report and Order and Second Further Notice of Proposed Rule Making does not contain any new or modified information collection.

F. Ordering Clauses

- 51. Accordingly, IT IS ORDERED that, pursuant to the authority of Sections 4(i), 303(r), and 332(a)(2) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), 332(a)(2), Parts 2 and 87 of the Commission's Rules ARE AMENDED as set forth in the attached Appendix B, effective sixty days after publication in the Federal Register.
- 52. IT IS FURTHER ORDERED that, pursuant to Sections 4(i), 303(r), and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r) and 403, this Second Further Notice of Proposed Rule Making IS HEREBY ADOPTED, and NOTICE IS HEREBY GIVEN of the

proposed regulatory changes described in the Second Further Notice of Proposed of Rule Making.

- 53. IT IS FURTHER ORDERED that the late-filed reply comments of the National Telecommunications and Information Administration are HEREBY ACCEPTED into the record of this proceeding.
- 54. IT IS FURTHER ORDERED that the Petition for Rulemaking filed by the Hawaii Air Tour Safety Working Group on September 26, 2003, RM-10824, is HEREBY GRANTED.
- 55. IT IS FURTHER ORDERED that the Commission's Consumer & Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Second Report and Order and Second Further Notice of Proposed Rule Making, including the Final Regulatory Flexibility Analysis and Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

G. Further Information

- 56. For further information, contact Jeffrey Tobias, Mobility Division, Wireless Telecommunications Bureau, (202) 418-1617, or TTY (202) 418-7233, or via electronic mail at jeff.tobias@fcc.gov.
- 57. To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty). This Second Report and Order and Second Further Notice of Proposed Rule Making can also be downloaded at: http://www.fcc.gov/.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch

Secretary

APPENDIX A

Commenting Parties

(WT Docket No. 01-289)

Comments

Aeronautical Radio, Inc. (ARINC)
The Boeing Company (Boeing)
Cessna Aircraft Company (Cessna)
Garmin AT, Inc. (Garmin)
National Telecommunications and Information Administration (NTIA)

Reply Comments

ARINC
Globalstar LLC (Globalstar)
Iridium Satellite, LLC (Iridium)
Rockwell Collins, Inc. (Rockwell Collins)

APPENDIX B

Final Rules

Parts 2 and 87 of title 47 of the Code of Federal Regulations are amended as follows:

PART 2 – FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

1. The authority citation for part 2 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 302a, 303, and 336, unless otherwise noted.

- 2. Section 2.106, the Table of Frequency Allocations, is amended as follows:
- a. Revise pages 29 and 46.
- b. In the list of United States (US) Footnotes, remove footnote US292 and add footnote US400.

§ 2.106 Table of Frequency Allocations.

The revisions and additions read as follows:

* * * * *

Table of Frequency Allocations	1-1 4' 1T 11		1-1435 MHz (UHF)	Andrea Teles	Page
International Table			tates Table	FCC Rule Part(s)	
Region 1 Table	Region 2 Table	Region 3 Table	Federal Table	Non-Federal Table	
(See previous page)			941-944 FIXED	941-944	D b C 44 1 (1 - (00)
942-960	942-960	942-960	I FIXED	FIXED	Public Mobile (22) Fixed Microwave (101)
FIXED	FIXED	FIXED	US268 US301 US302 G2	US268 US301 US302 NG120	Fixed Microwave (101)
MOBILE except aeronautical mobile	e MOBILE 5.317A	MOBILE 5.317A	944-960	944-960	<u> </u>
5,317A BROADCASTING 5,322		BROADCASTING	· · · · • · · · · · · · · · · · · · ·	FIXED	Public Mobile (22)
BROADCASTING 3.322					Auxiliary Broadcasting (74)
5.323		5.320		NG120	Fixed Microwave (101)
960-1164		13.320	960-1164	114G120	├
AERONAUTICAL RADIONAVIGAT	ION 5.328		AERONAUTICAL RADIONAVIGATION	5 328	Aviation (87)
	,0 0.023		7.2.137.110 1.01.2.13.131010.111011	0.020	A Malion (OT)
			US224 US400		1
1164-1215			1164-1215		1
AERONAUTICAL RADIONAVIGAT	ION 5.328		AERONAUTICAL RADIONAVIGATION	5.328	
RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-spa	ce) 5.328B	RADIONAVIGATION-SATELLITE (space	e-to-Earth) (space-to-space)	
F 200 A			- ann 110004		
5.328A 1215-1240		· · - · · · · · · · · · · · · · · · · ·	5.328A US224	14045 4040	
EARTH EXPLORATION-SATELLIT	E (activo)		1215-1240 EARTH EXPLORATION-SATELLITE	1215-1240 Earth exploration-satellite (active)	
RADIOLOCATION	E (active)		(active)	Space research (active)	1
RADIONAVIGATION-SATELLITE (snace-to-Earth) (snace-to-sna	ce) 5.328B 5.329 5.329A	RADIOLOCATION G56	Space research (active)	
SPACE RESEARCH (active)	space to Eurally (opage to opa	0.0200 0.020 0.02011	RADIONAVIGATION-SATELLITE		
			(space-to-Earth) (space-to-space)		
			G132	}	1)
			SPACE RESEARCH (active)		
5.330 5.331 5.332			5.332	j	
1240-1300			1240-1300	1240-1300	
EARTH EXPLORATION-SATELLIT	E (active)		AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION	Amateur (97)
RADIOLOCATION	. =		EARTH EXPLORATION-SATELLITE	Earth exploration-satellite (active)	
RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-spa	ce) 5.328B 5.329 5.329A	(active)	Space research (active)	
SPACE RESEARCH (active) Amateur			RADIOLOCATION G56 SPACE RESEARCH (active)	Amateur	
]
5.282 5.330 5.331 5.332 5.335 5	.335A		5.332 5.335	5.282	
1300-1350	ION E 117		1300-1350	1300-1350	
AERONAUTICAL RADIONAVIGATION 5.337			AERONAUTICAL RADIONAVIGATION 5.337	AERONAUTICAL RADIONAVIGATION	Aviation (87)
RADIOLOCATION RADIONAVIGATION-SATELLITE (I	Earth to enace)		Radiolocation G2	5.337	
5.149 5.337A	Laturio-space)		US342	Lucara	(
1350-1400	1350-1400		1350-1390	US342 1350-1390	
FIXED	RADIOLOCATION		FIXED	1330-1390	
MOBILE	TATOTOLOGATION		MOBILE		1
RADIOLOCATION	1		RADIOLOCATION G2	<u> </u>	
, , , , , , , , , , , , , , , , , , ,			1		
			5.334 5.339 US311 US342 G27	E 224 E 220 130244 130249	
	I		[G114	5.334 5.339 US311 US342	<u></u>

			.		
	12.2-12.7	12.2-12.5	12.2-12.75	12.2-12.7	
	FIXED	FIXED		FIXED	Satellite Communications (25)
	MOBILE except aeronautical mobile	FIXED-SATELLITE (space-to-Earth)	<u>l</u>	BROADCASTING-SATELLITE	Fixed Microwave (101)
	BROADCASTING	MOBILE except aeronautical mobile		İ	1
	BROADCASTING-SATELLITE	BROADCASTING			1
5.487 5,487A 5.492		5.484A 5.487			
12.5-12.75		12.5-12.75	1		
FIXED-SATELLITE (space-to-	5.487A 5.488 5.490 5.492	FIXED	1	5.487A 5.488 5.490	ſ
Earth) 5.484A (Earth-to-space)	12.7-12.75	FIXED-SATELLITE (space-to-Earth)		12.7-12.75	
, , , , , ,	FIXED	5.484A		FIXED NG118	Satellite Communications (25)
	FIXED-SATELLITE (Earth-to-space)	MOBILE except aeronautical mobile		FIXED-SATELLITE	Auxiliary Broadcasting (74)
	MOBILE except aeronautical mobile	BROADCASTING-SATELLITE	!	(Earth-to-space)	Cable TV Relay (78)
5.494 5.495 5.496		5.493		MOBILE	Fixed Microwave (101)
12.75-13.25			12.75-13.25	12.75-13.25	The state of the s
FIXED				FIXED NG118	
FIXED-SATELLITE (Earth-to-space) 5.441			FIXED-SATELLITE	#
MOBILE			ľ	(Earth-to-space) 5.441 NG104	
Space research (deep space) (space	e-to-Earth)		!	MOBILE	
			US251	US251 NG53	
13.25-13.4			13.25-13.4	13.25-13.4	
EARTH EXPLORATION-SATELLIT			#EARTH EXPLORATION-	AERONAUTICAL	Aviation (87)
AERONAUTICAL RADIONAVIGATI	ION 5.497		SATELLITE (active)	RADIONAVIGATION 5.497	1
SPACE RESEARCH (active)			AERONAUTICAL	Earth exploration-satellite (active)	
			RADIONAVIGATION 5.497 SPACE RESEARCH (active)	Space research (active)	4
5 4004 F 400			· '		1
5.498A 5.499			5.498A	1011075	
13.4-13.75	· · · · · · · · · · · · · · · · · · ·		13.4-13.75	13.4-13.75	D :
EARTH EXPLORATION-SATELLITE (active)			EARTH EXPLORATION- SATELLITE (active)	Earth exploration-satellite (active)	Private Land Mobile (90)
RADIOLOCATION			RADIOLOCATION G59	Radiolocation	
SPACE RESEARCH 5.501A Standard frequency and time signal-satellite (Earth-to-space)			SPACE RESEARCH (active)	Space research Standard frequency and time	1
Standard Requericy and time signal	-salenile (Earth-to-space)		5.501A	signal-satellite (Earth-to-space)	
		•	Standard frequency and time	agnor-solenite (Laiti-to-space)	Į.
			signal-satellite (Earth-to-space)		1
5.499 5.500 5.501 5.501B			5.501B		
13.75-14			13.75-14	13.75-14	
FIXED-SATELLITE (Earth-to-space) 5.484A		RADIOLOCATION G59	FIXED-SATELLITE	Satellite Communications (25)
RADIOLOCATION `			Standard frequency and time	(Earth-to-space) US337	Private Land Mobile (90)
Earth exploration-satellite			signal-satellite (Earth-to-space)	Radiolocation	
Standard frequency and time signal	l-satellite (Earth-to-space)		Space research US337	Standard frequency and time	1
Space research				signal-satellite (Earth-to-space)	
			1	Space research	4
5.499 5.500 5.501 5.502 5.503			US356 US357	US356 US357	
14-14.25		_	14-14.2	14-14.2	0.1.111
	e) 5.457A 5.457B 5.484A 5.506 5.506	SB .	Space research	FIXED-SATELLITE	Satellite Communications (25)
RADIONAVIGATION 5.504				(Earth-to-space) NG183	
Mobile-satellite (Earth-to-space) 5.5	504C 5.506A		1	Mobile-satellite (Earth-to-space)	1
Space research				Space research	
5.504A 5.505			J		Page 46

UNITED STATES (US) FOOTNOTES

US400 The use of the center frequency 978 MHz may be authorized to Universal Access Transceiver (UAT) stations on a primary basis for the specific purpose of transmitting datalink information in support of the Automatic Dependent Surveillance – Broadcast (ADS-B) Service, Traffic Information Services – Broadcast (TIS-B), and Flight Information – Broadcast (FIS-B).

PART 87—AVIATION SERVICES

3. The authority citation for Part 87 continues to read as follows:

AUTHORITY: 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303, 307(e) unless otherwise noted. Interpret or apply 48 Stat. 1064-1068, 1081-1105, as amended; 47 U.S.C. 151-156, 301-609.

4. Section 87.5 is amended by adding entries in alphabetical order for "Automatic Dependent Surveillance – Broadcast (ADS-B) Service," "Traffic Information Services – Broadcast (TIS-B) Service" and "Universal Access Transceiver (UAT)" to read as follows:

§ 87.5 Definitions.

* * * * *

<u>Automatic Dependent Surveillance – Broadcast (ADS-B) Service</u>. Broadcast transmissions from aircraft, supporting aircraft-to-aircraft or aircraft-to-ground surveillance applications, including position reports, velocity vector, intent and other relevant information about the aircraft.

* * * * *

<u>Traffic Information Services – Broadcast (TIS-B)</u>. Traffic information broadcasts derived from ground-based radar systems.

* * * *

<u>Universal Access Transceiver (UAT)</u>. A radio datalink system authorized to operate on the frequency 978 MHz to support Automatic Dependent Surveillance – Broadcast (ADS-B) Service, Traffic Information Services – Broadcast (TIS-B) and Flight Information Service – Broadcast (FIS-B).

5. Section 87.107 is amended by removing paragraph (a)(2), redesignating paragraphs (a)(3) through (a)(5) as (a)(2) through (a)(4), and revising paragraph (a)(2) to read as follows:

§ 87.107 Station identification.

(a) * * *

(2) The type of aircraft followed by the characters of the registration marking ("N" number) of the aircraft, omitting the prefix letter "N." When communication is initiated by a ground station, an aircraft station may use the type of aircraft followed by the last three characters of the registration marking. Notwithstanding any other provision of this section, an aircraft being moved by maintenance personnel from one location in an airport to another location in that airport may be identified by a station identification consisting of the name of the company owning or operating the aircraft, followed by the word "Maintenance" and additional alphanumeric characters of the licensee's choosing.

* * * * *

6. Section 87.137 is amended by revising the table in paragraph (a) to add an entry for F1D and footnote 18 to read as follows:

§ 87.137 Types of emission.

(a)* * *

	Emission	Authorized bandwidth (kilohertz)			
Class of emission	designator	Below 50 MHz	Above 50 MHz ¹⁶	Frequency deviation	
* * *	* * *	* * *	* * *	* * *	
F1D ¹⁸	1M30F1D		1300 kHz	312.5 kHz	
***	* * *	***	* * *	***	

* * * * *

7. Section 87.139 is amended by adding paragraph (1) to read as follows:

§ 87.139 Emission limitations.

* * * * *

(1)(1) For Universal Access Transceiver transmitters, the average emissions measured in a 100 kHz bandwidth must be attenuated below the maximum emission level contained within the authorized bandwidth by at least:

Frequency (MHz)	Attenuation (dB)
+/- 0.5	0
+/- 1.0	18
+/- 2.25	50
+/- 3.25	60

- (2) Universal Access Transceiver transmitters with an output power of 5 Watts or more must limit their emissions by at least 43 + 10 log (P) dB on any frequency removed from the assigned frequency by more than 250% of the authorized bandwidth. Those emissions shall be measured with a bandwidth of 100 kHz. P in the above equation is the average transmitter power measured within the occupied bandwidth in Watts.
- (3) Universal Access Transceiver transmitters with less than 5 Watts of output power must limit their emissions by at least 40 dB relative to the carrier peak on any frequency removed from the assigned frequency by more than 250% of the authorized bandwidth. Those emissions shall be measured with a bandwidth of 100 kHz.
 - 8. Section 87.141 is amended by adding paragraph (k) to read as follows:

§ 87.141 Modulation requirements.

* * * *

(k) Universal Access Transceiver transmitters must use F1D modulation without phase discontinuities.

¹⁸ Authorized only for Universal Access Transceiver use at 978 MHz.

* * * *

- 9. Section 87.171 is amended by adding in alphabetical order the symbol and class of station "UAT Universal Access Transceiver."
- 10. Section 87.173 is amended by revising the table in paragraph (b) to read as follows:

§ 87.173 Frequencies.

(b) Frequency table:

Frequency or frequency band	Subpart	Class of station	Remarks
90-110 kHz	Q	RL	LORAN "C".
190-285 kHz	Q	RLB	Radiobeacons.
200-285 kHz	О	FAC	Air traffic control.
325-405 kHz	О	FAC	Air traffic control.
325-435 kHz	Q	RLB	Radiobeacons.
410.0 kHz	F	MA	International direction-finding for use outside of United States.
457.0 kHz	F	MA	Working frequency for aircraft on over-water flights.
500.0 kHz	F	MA	International calling and distress frequency for ships and aircraft on over-water flights.
510-535 kHz	Q	RLB	Radiobeacons.
2182.0 kHz	F	MA	International distress and calling.
2648.0 kHz	1	AX	Alaska station.
2850.0-3025.0 kHz	I	MA, FAE	International HF.
2851.0 kHz	I, J	MA, FAE, FAT	International HF; Flight Test.
2866.0 kHz	I	MA, FAE	Domestic HF (Alaska).
2875.0 kHz	I	MA, FAE	Domestic HF.
2878.0 kHz	I	MA1, FAE	Domestic HF; International HF.
2911.0 kHz	I	MA, FAE	Domestic HF.
2956.0 kHz	I	MA, FAE	Domestic HF.
3004.0 kHz	I, J	MA, FAE, FAT	International HF; Flight Test.
3019.0 kHz	I	MA1, FAE	Domestic HF; International HF.
3023.0 kHz	F, M, O	MA1, FAR, FAC	Search and rescue communications.
3281.0 kHz	K	MA, FAS	Lighter-than-air craft and aeronautical stations serving lighter-than-air craft.
3400.0-3500.0 kHz	I	MA, FAE	International HF.
3434.0 kHz	I	MA1, FAE	Domestic HF.
3443.0 kHz	J	MA, FAT	Flight Test.

3449.0 kHz	I	MA, FAE	Domestic HF.
3470.0 kHz	I	MA, FAE	Domestic HF; International HF.
4125.0 kHz	F	MA	Distress and safety with ships and coast stations.
4550.0 kHz	I	AX	Gulf of Mexico.
4645.0 kHz	I	AX	Alaska.
4650.0-4700.0 kHz	I	MA, FAE	International HF.
4672.0 kHz	I	MA1, FAE	Domestic HF.
4947.5 kHz	I	AX	Alaska.
5036.0 kHz	I	AX	Gulf of Mexico.
5122.5 kHz	I	AX	Alaska.
5167.5 kHz	I	FA	Alaska emergency.
5310.0 kHz	I	AX	Alaska.
5450.0-5680.0 kHz	I	MA, FAE	International HF.
5451.0 kHz	J	MA, FAT	Flight Test.
5463.0 kHz	I	MA1, FAE	Domestic HF.
5469.0 kHz	J	MA, FAT	Flight Test
5472.0 kHz	I	MA, FAE	Domestic HF.
5484.0 kHz	I	MA, FAE	Domestic HF.
5490.0 kHz	I	MA, FAE	Domestic HF.
5496.0 kHz	I	MA, FAE	Domestic HF.
5508.0 kHz	I	MA1, FAE	Domestic HF.
5571.0 kHz	J	MA, FAT	Flight Test.
5631.0 kHz	I	MA, FAE	Domestic HF.
5680.0 kHz	F, M, O	MA1, FAC, FAR	Search and rescue communications.
5887.5 kHz	I	AX	Alaska.
6525.0-6685.0 kHz	I	MA, FAE	International HF.
6550.0 kHz	J	MA, FAT	Flight Test.
6580.0 kHz	I	MA, FAE	Domestic HF.
6604.0 kHz	I	MA, FAE	Domestic HF.
8015.0 kHz	I	AX	Alaska.
8364.0 kHz	F	MA	Search and rescue communications.
8815.0-8965.0 kHz	I	MA, FAE	International HF.
8822.0 kHz	J	MA, FAT	Flight Test.
8855.0 kHz	I	MA, FAE	Domestic HF; international HF.
8876.0 kHz	I	MA, FAE	Domestic HF.
10005.0-10100.0 kHz	I	MA, FAE	International HF.
10045.0 kHz	J	MA, FAT	Flight Test.
10066.0 kHz	I	MA, FAE	Domestic HF; international HF.
11275.0-11400.0 kHz	I	MA, FAE	International HF.
11288.0 kHz	J	MA, FAT	Flight Test.
11306.0 kHz	J	MA, FAT	Flight Test.
11357.0 kHz	I	MA, FAE	Domestic HF.

11363.0 kHz	/ <i>I</i>	\ MA, FAE	Domestic HF.
13260.0-13360.0 kHz	I	MA, FAE	International HF.
13312.0 kHz	I, J	MA, FAE,	International HF;
	-, -	FAT	Flight Test.
17900.0-17970.0 kHz	1	MA, FAE	International HF.
17964.0 kHz	J	MA, FAT	Flight Test.
21924.0-22000.0 kHz	I	MA, FAE	International HF.
21931.0 kHz	J	MA, FAT	Flight Test.
72.020-75.980 MHz	P	FA, AXO	Operational fixed; 20 kHz spacing.
75.000 MHz	Q	RLA	Marker beacon.
108.000 MHz	Q	RLT	
108.000-117.950 MHz	Q	RLO	VHF omni-range.
108.000-117.975 MHz	Q	DGP	Differential GPS.
108.050 MHz.	Q	RLT	
108.100-111.950 MHz	Q	RLL	ILS Localizer.
108.100 MHz	Q	RLT	
108.150 MHz	Q	RLT	
118.000-121.400 MHz	О	MA, FAC,	25 kHz channel spacing.
		FAW, GCO,	
121.500 MHz	G, H, I, J,	RCO, RPC MA, FAU,	Emergency and distress.
121.500 MHZ	K, M, O	FAE, FAT,	Emergency and distress.
	12,2, 0	FAS, FAC,	
		FAM, FAP	
121.600-121.925 MHz	O, L, Q	MA, FAC,	25 kHz channel spacing.
		MOU, RLT, GCO, RCO,	
		RPC	
121.950 MHz	K	FAS	
121.975 MHz	F	MA2, FAW,	Air traffic control operations.
		FAC, MOU	
122.000 MHz	F	MA, FAC,	Air carrier and private aircraft enroute flight
122.025 MHz	F	MOU MA2, FAW,	advisory service provided by FAA. Air traffic control operations.
122.023 WHZ	F	FAC, MOU	All traffic control operations.
122.050 MHz	F	MA, FAC,	Air traffic control operations.
		MOU	
122.075 MHz	F	MA2, FAW,	Air traffic control operations.
122 100 MHz	E O	FAC, MOU	Air troffic control energtions
122.100 MHz	F, O	MA, FAC, MOU	Air traffic control operations.
122.125-122.675 MHz	F	MA2, FAC,	Air traffic control operations; 25 kHz
		MOU	spacing.
122.700 MHz	G, L	MA, FAU,	Unicom at airports with no control tower;
100 705 1411-		MOU	Aeronautical utility stations.
122.725 MHz	G, L	MA, FAU, MOU	Unicom at airports with no control tower; Aeronautical utility stations.
122.750 MHz	F	MA2	Private fixed wing aircraft air-to-air
			communications.

122.775 MHz	\ K	\ MA, FAS	
122.800 MHz	G, L	MA, FAU, MOU	Unicom at airports with no control tower; Aeronautical utility stations.
122.825 MHz	I	MA, FAE	Domestic VHF.
122.850 MHz	H, K	MA, FAM,	
		FAS	
122.875 MHz	I	MA, FAE	Domestic VHF.
122.900 MHz	F, H, L,	MA, FAR,	
122 025 8411	M	FAM, MOU	
122.925 MHz	Н	MA2, FAM	Training of simulation with a manufacture
122.950 MHz	G, L	MA, FAU, MOU	Unicom at airports with control tower; Aeronautical utility stations.
122.975 MHz	G, L	MA, FAU,	Unicom at airports with no control tower;
		MOU	Aeronautical utility stations.
123.000 MHz	G, L	MA, FAU,	Unicom at airports with no control tower;
122 025 MH=	F	MOU MA2	Aeronautical utility stations.
123.025 MHz	Γ	IVIAZ	Helicopter air-to-air communications; Air traffic control operations.
123.050 MHz	G, L	MA, FAU,	Unicom at airports with no control tower;
		MOU	Aeronautical utility stations.
123.075 MHz	G, L	MA, FAU,	Unicom at airports with no control tower;
123.100 MHz	MO	MOU MA, FAC,	Aeronautical utility stations.
123.100 MHz	M, O	FAR	
123.125 MHz	J	MA, FAT	Itinerant.
123.150 MHz	J	MA, FAT	Itinerant.
123.175 MHz	J	MA, FAT	Itinerant.
123.200 MHz	J	MA, FAT	
123.225 MHz	J	MA, FAT	
123.250 MHz	J	MA, FAT	
123.275 MHz	J	MA, FAT	
123.300 MHz	K	MA, FAS	
123.325 MHz	J	MA, FAT	
123.350 MHz	J	MA, FAT	
123.375 MHz	J	MA, FAT	
123.400 MHz	J	MA, FAT	Itinerant.
123.425 MHz	J	MA, FAT	
123.450 MHz	J	MA, FAT	
123.475 MHz	J	MA, FAT	
123.500 MHz	K	MA, FAS	
123.525 MHz	J	MA, FAT	
123.550 MHz	J	MA, FAT	
123.575 MHz	J	MA, FAT	
123.6-128.8 MHz	О	MA, FAC,	25 kHz channel spacing.
		FAW, GCO,	
130 036 133 000 1411-		RCO, RPC	Domestic VHE: 25 kHz shannel enecine
128.825-132.000 MHz	I	MA, FAE	Domestic VHF; 25 kHz channel spacing.

132.025-135.975 MHz) O) MA, FAC,	25 kHz channel spacing.
		FAW, GCO, RCO, RPC	
136.000-136.400 MHz	O, S	MA, FAC,	Air traffic control operations; 25 kHz channel
2001000	-,-	FAW, GCO,	spacing.
		RCO, RPC	
136.425 MHz	O, S	MA, FAC,	Air traffic control operations.
		FAW, GCO, RCO, RPC	
136.450 MHz	O, S	MA, FAC,	Air traffic control operations.
100000000000000000000000000000000000000	", "	FAW, GCO,	The same control operations.
		RCO, RPC	
136.475 MHz	O, S	MA, FAC,	Air traffic control operations.
		FAW, GCO, RCO, RPC	
136.500-136.875 MHz	I	MA, FAE	Domestic VHF; 25 kHz channel spacing.
136.900 MHz	I	MA, FAE	International and domestic VHF.
136.925 MHz	I	MA, FAE	International and domestic VHF.
136.950 MHz	I	MA, FAE	International and domestic VHF.
136.975 MHz	I	MA, FAE	International and domestic VHF.
156.300 MHz	F	MA	For communications with ship stations under specific conditions.
156.375 MHz	F	MA	For communications with ship stations under
2000/0 2 222	-		specific conditions; Not authorized in New
			Orleans Vessel traffic service area.
156.400 MHz	F	MA	For communications with ship stations under specific conditions.
156.425 MHz	F	MA	For communications with ship stations under
156.450 MHz	F	MA	specific conditions. For communications with ship stations under
130.430 WIIIZ		IVIA	specific conditions.
156.625 MHz	F	MA	For communications with ship stations under
			specific conditions.
156.800 MHz	F	MA	Distress, safety and calling frequency; For
			communications with ship stations under specific conditions.
156.900 MHz	F	MA	For communications with ship stations under
			specific conditions.
157.425 MHz	F	MA	For communications with commercial fishing
			vessels under specific conditions except in Great Lakes and St. Lawrence Seaway
			Areas.
243.000 MHz	F	MA	Emergency and distress frequency for use of
			survival craft and emergency locator
220 (00 225 400 144		D. C	transmitters.
328.600-335.400 MHz	Q	RLG	ILS glide path.
334.550 MHz	Q	RLT	
334.700 MHz	Q	RLT	Emangamou and Materia
406.0-406.1 MHz	F, G, H, I, J, K,	MA, FAU, FAE, FAT,	Emergency and distress.
	M, O	FAS, FAC,	
	•		•

)	FAM, FAP)
960-1215 MHz	F, Q	MA, RL, RNV	Electronic aids to air navigation.
978.000 MHz	F, L, Q,	MA, MOU, UAT	Universal Access Transceivers.
	Q	RLT	
979.000 MHz	Q	RLT	
1030.000 MHz	Q	RLT	
1104.000 MHz	Q	RLT	
1300-1350 MHz	F, Q	MA, RLS	Surveillance radars and transponders.
1435-1525 MHz	F, J	MA, FAT	Aeronautical telemetry and telecommand operations.
1559-1610 MHz	Q	DGP	Differential GPS.
1559-1626.5 MHz	F, Q	MA, RL	Aeronautical radionavigation.
1646.5-1660.5 MHz	F	TJ	Aeronautical Mobile-Satellite (R).
2310-2320 MHz	J	MA, FAT	Aeronautical telemetry and telecommand operations.
2345-2395 MHz	J	MA, FAT	Aeronautical telemetry and telecommand operations.
2700-2900 MHz	Q	RLS, RLD	Airport surveillance and weather radar.
4200-4400 MHz	F	MA	Radio altimeters.
5000-5250 MHz	Q	MA, RLW	Microwave landing systems.
5031.000 MHz	Q	RLT	
5350-5470 MHz	F	MA	Airborne radars and associated airborne beacons.
8750-8850 MHz	F	MA	Airborne doppler radar.
9000-9200 MHz	Q	RLS, RLD	Land-based radar.
9300-9500 MHz	F, Q	MA	Airborne radars and associated airborne beacons.
13250-13400 MHz	F	MA	Airborne doppler radar.
15400-15700 MHz	Q	RL	Aeronautical radionavigation.
24750-25050 MHz	F, Q	MA, RL	Aeronautical radionavigation.
32300-33400 MHz	F, Q	MA, RL	Aeronautical radionavigation.
			·

11. Section 87.187 is amended by revising paragraphs (p), (q), and (x) and adding paragraph (ff) to read as follows:

§ 87.187 Frequencies.

* * * *

(p) The frequency band 1435–1525 MHz is available on a primary basis and the frequency band 1525–1535 MHz is available on a secondary basis for telemetry and telecommand associated with the flight testing of aircraft, missiles, or related major components. This includes launching into space, reentry into the earth's atmosphere and incidental orbiting prior to reentry. The following frequencies are shared with flight telemetry mobile stations: 1444.5, 1453.5, 1501.5, 1515.5, and 1524.5 MHz. See §87.303(d).

Note: Aeronautical telemetry operations must protect mobile-satellite operations in the 1525–2535 MHz band and maritime mobile-satellite operations in the 1530–1535 MHz band.

(q) The frequencies in the band 1545.000–1559.000 MHz and 1646.500–1660.500 MHz are authorized for use by the Aeronautical Mobile-Satellite (R) Service. The use of the bands 1544.000–1545.000 MHz (space-to-Earth) and 1645.500–1646.500 MHz (Earth-to-space) by the Mobile-Satellite Service is limited to distress and safety operations. In the frequency bands 1549.500–1558.500 MHz and 1651.000–1660.000 MHz, the Aeronautical Mobile-Satellite (R) requirements that cannot be accommodated in the 1545.000–1549.500 MHz, 1558.500–1559.000 MHz, 1646.500–1651.000 MHz, and 1660.000–1660.500 MHz bands shall have priority access with real-time preemptive capability for communications in the Mobile-Satellite Service. Systems not interoperable with the Aeronautical Mobile-Satellite (R) Service shall operate on a secondary basis. Account shall be taken of the priority of safety-related communications in the Mobile-Satellite Service.

* * * * *

- (x) The frequency bands 24450-24650 MHz, 24750-25050 MHz and 32300-33400 MHz are available for airborne radionavigation devices.
 - (ff) The frequency 978 MHz is authorized for Universal Access Transceiver data transmission.

* * * * *

* * *

- 12. Section 87.345 is amended by adding paragraph (f) to read as follows:
- § 87.345 Scope of service.

* * * *

- (f) Transmissions by aeronautical utility mobile stations for Universal Access Transceiver service are authorized.
 - 13. Section 87.349 is amended by adding paragraph (e) to read as follows:

§ 87.349 Frequencies.

- (e) The frequency 978.0 MHz is authorized for Universal Access Transceiver data transmission.
 - 14. Section 87.421 is amended by revising paragraph (c) to read as follows:

§ 87.421 Frequencies.

* * * *

(c) Frequencies listed in the introductory paragraph of this section are available to control towers and RCOs for communications with ground vehicles and aircraft on the ground. The antenna heights shall be restricted to the minimum necessary to achieve the required coverage. Channel spacing is 25 kHz.

* * * * *

15. Section 87.475 is amended by adding paragraph (b)(9) and revising paragraphs (c)(1) and (c)(2) to read as follows

§ 87.475 Frequencies.

* * * * *

(b) * * *

- (9) 978.0 MHz is authorized for Universal Access Transceiver service.
- (c) Frequencies available for radionavigation land test stations. (1) The frequencies set forth in § 87.187(c), (e) through (j), (r), (t), and (ff) and § 87.475(b) (6) through (10), and (12) may be assigned to radionavigation land test stations for the testing of aircraft transmitting equipment that normally operate on these frequencies and for the testing of land-based receiving equipment that operate with airborne radionavigation equipment.
- (2) The frequencies available for assignment to radionavigation land test stations for the testing of airborne receiving equipment are 108.000 and 108.050 MHz for VHF omni-range; 108.100 and 108.150 MHz for localizer; 334.550 and 334.700 MHz for glide slope; 978 and 979 MHz (X channel)/1104 MHz (Y channel) for DME; 978 MHz for Universal Access Transceiver; 1030 MHz for air traffic control radar beacon transponders; and 5031.0 MHz for microwave landing systems. Additionally, the frequencies in paragraph (b) of this section may be assigned to radionavigation land test stations after coordination with the FAA. The following conditions apply:
- (i) The maximum power authorized on the frequencies 108.150 and 334.550 MHz is 1 milliwatt. The maximum power authorized on all other frequencies is one watt.
- (ii) The pulse repetition rate (PRR) of the 1030 MHz ATC radar beacon test set will be 235 pulses per second (pps) ±5pps.
- (iii) The assignment of 108.000 MHz is subject to the condition that no interference will be caused to the reception of FM broadcasting stations and stations using the frequency are not protected against interference from FM broadcasting stations.

* * * *

APPENDIX C

Proposed Rules

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR Parts 2 and 87 as follows:

PART 2 – FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

1. The authority citation for part 2 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 302a, 303, and 336, unless otherwise noted.

- 2. Section 2.106, the Table of Frequency Allocations, is amended as follows:
 - a. Revise page 18.
 - b. In the list of United States footnotes, add footnote USxxx.

§ 2.106 Table of Frequency Allocations.

The revisions and additions read as follows:

* * * *

74.8-75.2			74.8-75.2 AERC:\AUTICAL RADIONAVIGAT	ION .	Aviation (87)	
AERONAUTICAL RADIONAVIGATION 5.180 5.181			5.180	Aviation (67)		
75.2-87.5 FIXED MOBILE except aeronautical mobile	75.2-75.4 FIXED MOBILE 5.179		75.2-75.4 FIXED MOBILE		Private Land Mobile (90)	
			US273			
	75.4-76 FIXED MOBILE	75.4-87 FIXED MOBILE	75.4-88	75.4-76 FIXED MOBILE NG3 NG49 NG56	Public Mobile (22) Private Land Mobile (90) Personal Radio (95)	
3.173 3.179 3.104 3.107	76-88 BROADCASTING Fixed Mobile	5.182 5.183 5.188 87-100 FIXED MOBILE		76-88 BROADCASTING	Broadcast Radio (TV)(73) Auxiliary Broadcasting (74)	
	5.185	BROADCASTING		NG115 NG128 NG142 NG149		
5.190 100-108	88-100 BROADCASTING		88-108	88-108 BROADCASTING NG2	Broadcast Radio (FM)(73) Auxiliary Broadcasting (74)	
BROADCASTING 5.192 5.194			US93	US93 NG128		
108-117.975 AERONAUTICAL RADIONAVIGATION		·	108-117.975 AERONAUTICAL RADIONAVIGAT		Aviation (87)	
5.197 5.197A	•		US93 US343	10,1	/ Tridion (or)	
117.975-137 AERONAUTICAL MOBILE (R)			117.975-121.9375 AERONAUTICAL MOBILE (R)			
			5.111 5.199 5.200 US26 US28 U			
			121.9375-123.0875	121.9375-123.0875 AERONAUTICAL MOBILE		
			US30 US31 US33 US80 US102 US213	US30 US31 US33 US80 US102 US213		
			123.0875-123.5875 AERONAUTICAL MOBILE			
			5.200 US32 US33 US112			
			123.5875-128.8125 AERONAUTICAL MOBILE (R)			
			US26 USxxx			
			128.8125-132.0125	128.8125-132.0125 AERONAUTICAL MOBILE (R)		
			132.0125-136 AERONAUTICAL MOBILE (R)			
			US26			
			136-137	136-137 AERONAUTICAL MOBILE (R)		
	02 5.203 5.203A 5.203B		US244	US244		

UNITED STATES (US) FOOTNOTES

USxxx In Hawaii, the frequencies 120.65 MHz and 127.05 MHz may be authorized to non-Federal aircraft stations for air-to-air communications as specified in 47 CFR 87.187.

* * * *

Part 87 of title 47 of the Code of Federal Regulations is proposed to be amended as follows:

PART 87—AVIATION SERVICES

3. The authority citation for Part 87 continues to read as follows:

AUTHORITY: 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303, 307(e) unless otherwise noted. Interpret or apply 48 Stat. 1064-1068, 1081-1105, as amended; 47 U.S.C. 151-156, 301-609.

4. Section 87.187 is amended by adding new paragraphs (gg) and (hh) to read as follows:

§ 87.187 Frequencies.

- (a) * * *
- (gg) (1) The frequency 120.650 MHz is authorized for air-to-air communications for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Maui.
- (2) The frequency 121.950 MHz is authorized for air-to-air use for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Molokai.
- (3) The frequency 122.850 MHz is authorized for air-to-air use for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Oahu.
- (4) The frequency 122.850 MHz is authorized for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Hawaii when aircraft are south and east of the 215 degree radial of very high frequency omni-directional radio range of Hilo International Airport.
- (5) The frequency 127.050 MHz is authorized for air-to-air use for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Hawaii when aircraft are north and west of the 215 degree radial of very high frequency omni-directional radio range of Hilo International Airport.
- (6) The frequency 127.050 MHz is authorized for air-to-air use for aircraft over and within five nautical miles of the Hawaiian Island of Kauai.
- (hh) (1) The frequency 121.95 MHz is authorized for air-to-air communications for aircraft within the area bounded by the following coordinates (all coordinates are referenced to North American Datum 1983 (NAD83)):

```
33-46-00 N. Lat.; 118-27-00 W. Long. 33-47-00 N. Lat.; 118-12-00 W. Long. 33-40-00 N. Lat.; 118-00-00 W. Long. 33-35-00 N. Lat.; 118-08-00 W. Long. 34-00-00 N. Lat.; 118-26-00 W. Long.
```

(2) The frequency 122.775 MHz is authorized for air-to-air communications for aircraft within the area bounded by the following coordinates (all coordinates are referenced to North American Datum 1983 (NAD83)):

```
34-22-00 N. Lat.; 118-30-00 W. Long. 34-35-00 N. Lat.; 118-15-00 W. Long. 34-27-00 N. Lat.; 118-15-00 W. Long. 34-16-00 N. Lat.; 118-35-00 W. Long.
```

```
34-06-00 N. Lat.; 118-35-00 W. Long. 34-05-00 N. Lat.; 118-50-00 W. Long.
```

(3) The frequency 123.30 MHz is authorized for air-to-air communications for aircraft within the area bounded by the following coordinates (all coordinates are referenced to North American Datum 1983 (NAD83)):

```
34-08-00 N. Lat.; 118-00-00 W. Long. 34-10-00 N. Lat.; 117-08-00 W. Long. 34-00-00 N. Lat.; 117-08-00 W. Long. 33-53-00 N. Lat.; 117-42-00 W. Long. 33-58-00 N. Lat.; 118-00-00 W. Long.
```

(4) The frequency 123.50 MHz is authorized for air-to-air communications for aircraft within the area bounded by the following coordinates (all coordinates are referenced to North American Datum 1983 (NAD83)):

```
33-53-00 N. Lat.; 117-37-00 W. Long. 34-00-00 N. Lat.; 117-15-00 W. Long. 34-00-00 N. Lat.; 117-07-00 W. Long. 33-28-00 N. Lat.; 116-55-00 W. Long. 33-27-00 N. Lat.; 117-12-00 W. Long.
```

(5) The frequency 123.50 MHz is authorized for air-to-air communications for aircraft within the area bounded by the following coordinates (all coordinates are referenced to North American Datum 1983 (NAD83)):

```
33-50-00 N. Lat.; 117-48-00 W. Long. 33-51-00 N. Lat.; 117-41-00 W. Long. 33-38-00 N. Lat.; 117-30-00 W. Long. 33-30-00 N. Lat.; 117-30-00 W. Long. 33-30-00 N. Lat.; 117-49-00 W. Long.
```

5. Section 87.215 is amended by revising paragraph (b) to read as follows:

§ 87.215 Supplemental Eligibility.

(b) Only one unicom will be authorized to operate at an airport which does not have a control tower, RCO or FAA flight service station that effectively controls traffic at the airport (*i.e.*, where the unicom frequency is not the published common traffic advisory frequency). At an airport which has a part-time or full-time control tower, RCO or FAA flight service station that effectively controls traffic at the airport, the one unicom limitation does not apply and the airport operator and all aviation services organizations may be licensed to operate a unicom on the assigned frequency.
